

CLAIMS

1. A connection structure for bonding a heat exchanger tank with a connector, comprising:

a heat exchanger tank having opening each formed at one of the two side ends thereof along the direction in which tubes are layered;

a connector having at least either a heat exchanging medium intake portion or a heat exchanging medium outlet portion; and

a brazing filler metal supplying member having formed thereat a connecting hole to communicate between an opening at said heat exchanger tank and said intake/outlet portion at said connector,

wherein said heat exchanger tank and said connector are brazed and bonded together with a brazing filler metal material supplied to said heat exchanger tank and said connector from said brazing filler metal supplying member held between one of the openings at said heat exchanger tank and said intake/outlet portion formed at said connector.

2. A connection structure for bonding a heat exchanger tank with a connector according to claim 1,

wherein said heat exchanger tank is an extrusion-molded tank formed through extrusion molding, which is divided into a plurality of chambers by a partitioning portion along the width of said heat exchanger.

3. A connection structure for bonding a heat exchanger tank with a connector according to claim 1 or 2,

wherein projected portions to be held at said heat exchanger tank and said connector are formed to extend outward at said brazing filler metal supplying member.

4. A connection structure for bonding a heat exchanger tank with a connector according to claim 3,

wherein a recessed portion extending along the direction of airflow is formed on a side ranging along the direction of airflow at said external circumferential edge of each opening at the tank, and a recessed portion extending along the direction of airflow is also formed at a side of said connector ranging along the direction of airflow and located toward said brazing filler metal supplying member.

5. A connection structure for bonding a heat exchanger tank with a connector according to claim 1 or 2,

wherein a projected portion extending along the longer side of the tank is formed at an external circumferential edge of the opening at the tank, a groove portion at which the projected portion is to be engaged is formed at a side of said brazing filler metal supplying member, and a groove portion at which the projected portion is to be engaged is also formed at a side of said connector toward said brazing filler metal supplying member.

6. A connection structure for bonding a heat exchanger tank with a connector according to claim 4,

wherein a second projected portion extending along the longer side of the tank is formed at said partitioning portion, with an insertion hole at which said second projected portion can be inserted formed between said connecting holes at said brazing filler metal supplying member.

7. A connection structure for bonding a heat exchanger tank with a connector according to claim 1 or 2, comprising:

a heat exchanger tank having openings each formed at one of the two side ends thereof along the direction in which tubes are layered; and

a connector having either a heat exchanging medium intake portion or a heat exchanging medium outlet portion;

wherein said heat exchanger tank is an extrusion-molded tank formed through extrusion molding and said connector is constituted with an assembly achieved by combining a pipe portion formed through machining with a plate portion having two services thereof clad with a brazing filler metal material; and

wherein the tank and said connector are brazed and bonded to each other with the brazing filler metal supplied to said heat exchanger tank and said connector by disposing said plate portion between the tank and the pipe portion.

8. A connection structure for bonding a heat exchanger tank with a connector, comprising:

a heat exchanger tank having openings each formed at one of the two side ends thereof along the direction in which tubes are layered;

a connector having at least either a heat exchanging medium intake portion or a heat exchanging medium outlet portion;

a brazing filler metal supplying member having formed thereat a connecting hole to communicate between an opening at said heat exchanger tank and said intake/outlet portion at said connector;

a first jig that is allowed to come in contact with a surface of said connector located on a side opposite from the side where said brazing filler metal supplying member is present; and

a second jig that is allowed to come into contact with a surface of said heat exchanger tank on a side opposite from the side where said connector is present,

wherein said brazing filler metal supplying member is held by first clamping said brazing filler metal supplying member between one of the openings at said heat exchanger tank and said intake/outlet portion formed at said connector, placing said first jig in contact with said connector, placing said second jig in contact with said heat exchanger tank and then binding said first jig, said connector, said brazing filler metal supplying member, said heat exchanger tank and said second jig together with a binding member.